

Why Does the

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Plant-Based

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Diet?

by Steve Hall

Environmental problems can sometimes seem so overwhelming that it is hard to see how one person can make a difference. But you can make a difference by looking at your consumption and how your food choices fit in to it. Over-consumption in the North has as much to do with today's environmental problems as over-population does in the South. You can't personally change the world's rate of population growth, but you can change your consumption—and make a difference.

Earth Day is a perfect time to think about the environmental implications of our Canadian lifestyle. We are blessed with beautiful open land and fresh water, but we are among the world's highest per capita users of energy and water and largest producers of waste. We are part of the twenty percent of the world's population that has control over eighty percent of the Earth's resources. A few years ago I was thinking about this gap between rich and poor and realized that I needed to reduce my consumption. After doing some reading I discovered what it actually took to produce the meat I was consuming daily. I also discovered the extent to which our Western diet is centred around meat, compared to the diet of people living in developing countries. I realized that the best way for me to reduce my over-consumption was to reduce my consumption of meat and eventually to adopt a plant-based diet.

People don't usually think about their consumption of food in the same way they think about their consumption of other commodities. Over-consumption is normally associated with gas-guzzling cars, useless electric kitchen gadgets and disposable diapers, but not food. Make no mistake about it, today's meat industry is big business and is no different from the automobile industry, arms industry, electronics industry or lumber industry. Meat is mass produced in (dis)assembly line style just like any other widget, and consumed just like any other widget. Therefore, when looking at over-consumption, meat should be included just like any other piece of merchandise.

Consider the following example: Nigeria's per-capita meat consumption is approximately 6.4 kilograms a year and China's is about 23 kg, but, Canada's is 65 kg a year and the United States' is about 95 kg. According to these statistics, the average Canadian eats ten times more meat each year than a Nigerian—a perfect example of how wealth is concentrated in certain parts of the world. But there is more to the picture than a difference in the quantity of



1 kg of toma-
toes requires
190 litres of
water...but 1kg
of beef requires
a whopping
43,500 litres of
water.

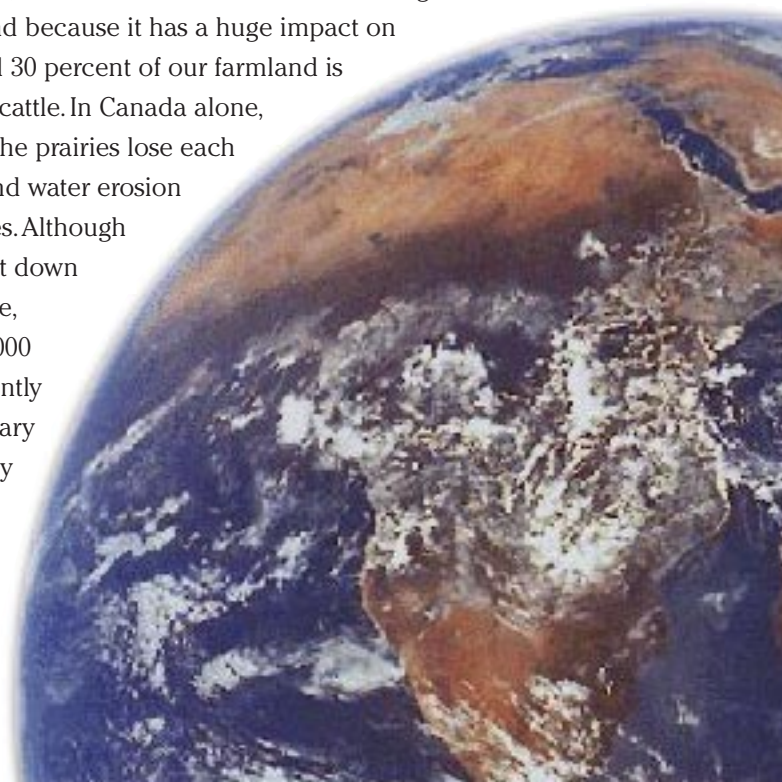
meat consumed in different parts of the world.

Like all the products we buy, meat is made up of inputs. The largest are water, grain, land, and energy. Others include hormones to promote growth, antibiotics to prevent disease, and fertilizers and pesticides to grow the feed.

To produce a kilogram of *grain-fed* beef, it takes, on average, 10 kg of grain and 680 litres of water. Pigs require about 4 kg of grain to produce 1 kg of pork and chickens require 2 kg of grain to produce 1 kg of meat. In comparison, according to a study in California, 1 kg of tomatoes requires 190 litres of water, 1 kg of potatoes requires 198 litres of water, 1 kg of wheat requires 209 litres of water—but 1 kg of *ranch-raised* beef can require as much as a whopping 43,500 litres of water. Even rice, which uses more water than any other grain, requires one-tenth the water needed to produce meat.

In order to meet our demand for meat, millions of tonnes of grain are diverted to feed livestock. More than $\frac{1}{3}$ of the world's total grain harvest is fed to livestock. Much of this grain is imported from developing countries where farmers are encouraged to use land to grow export crops for the West. *Even during the famine of the mid 1980s, Ethiopia was exporting grain that could have been used to feed its own people to the West—feed for livestock.*

Another requirement to raise livestock is land. An equivalent amount of land can feed six times more people eating a plant-based diet than people eating a meat-based diet. The North American meat industry therefore looks to the south for cheaper land, which has resulted in cattle ranching becoming a major cause of rainforest destruction in Central and South America. Ranchers clear forests and drain wetlands to graze cattle for export, or to grow feed for animals, instead of growing crops for local consumption. This results in the loss of trees and habitat, as well as many different species of plants, animals, and insects. Cattle ranching also affects North American land because it has a huge impact on soil erosion. Around 30 percent of our farmland is used as pasture for cattle. In Canada alone, the amount of soil the prairies lose each year due to wind and water erosion is 305 million tonnes. Although the trees weren't cut down specifically for cattle, approximately 260,000 head of cattle currently graze in the temporary meadows created by clearcuts in BC. Without access to



About 40 kg

Sources: International Development

of manure are

Research Centre (IDRC); WorldWatch

produced for

Institute; Environment Canada; Agriculture

each kilogram

Canada; The World in Your Kitchen; Diet

of edible beef

For A New America; Eating With

that is eventual-

Conscience campaign; US Humane

ly brought to

Society; "Cow Pies and Dirty Water", the

market.

Georgia Straight, December 12/96.

this government land that has been clearcut, the head of BC's Cattleman's Association says there would be no beef industry in this province.

Energy is required throughout the meat production process. According to a 1992 study by Alberta Agriculture, meat production requires, on average, 10–20 times more energy per edible tonne than grain production. In other words, per unit of energy input, many more people can be fed with grain than with meat.

Garbage is a huge by-product of our general over-consumption. Aside from the packaging, you would think that eating meat does not create all that much waste. However, livestock accounts for most of Canada's raw sewage pollution. According to Environment Canada, about 40 kg of manure are produced for each kilogram of edible beef that is eventually brought to market. The mounds of manure and streams of urine produced by livestock can permeate our drinking and ground water. The outbreak of cryptosporidium which hit thousands of people in the Okanagan in the summer of 1996 is thought to be linked in part to the manure of cattle grazing in clearcuts near the watershed. The manure and urine waste, plus the pesticides and fertilizers used to grow feed, are among the largest sources of water pollution in North America. Manure is also a source of the greenhouse gas methane. Combine this with the methane gas released during the cattle's digestive process, and you find that farm animals were responsible for 27 percent of the anthropogenic methane generated in Canada in 1990.

So, when someone eats meat they are also consuming hundreds of litres of water, many kilograms of grain, tonnes of topsoil, acres of trees and plants, and countless species of insects and animals; they are diverting food resources away from people who really need them, and creating tonnes of waste and pollution.

Given these environmental costs, it is odd that our society centres its diet so strongly around meat. The fact that we consume so much more meat than the rest of the world when we don't need to is a clear example of how wasteful our society is—and the need to change. A good way to bring things into balance is to start with our food choices. A simple reduction in the amount of meat we consume will be good for people, good for the animals and good for the planet. So celebrate Earth Day by enjoying an earth friendly plant-based meal. ■

